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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,516	01/24/2002	Joel L. Wolf	YOR9-2001-0666 US1 (8728-	4326
7590	09/20/2005		EXAMINER MEUCCI, MICHAEL D	
Frank Chau F. CHAU & ASSOCIATES, LLP Suite 501 1900 Hempstead Turnpike East Meadow, NY 11554			ART UNIT 2142	PAPER NUMBER
DATE MAILED: 09/20/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/057,516

Applicant(s)

WOLF ET AL.

Examiner

Michael D. Meucci

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7,9,10,13-15 and 17 is/are rejected.
- 7) ☒ Claim(s) 3,4,8,11,12 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Claims 1-17 still pending in the application.
2. Examiner acknowledges amendments made to drawings to overcome objections b-d. All drawing objections have been withdrawn.
3. Examiner acknowledges amendments made to give "the hypothetical number of sharable requests" and "the hypothetical number of unsharable requests" proper antecedent basis.
4. Upon further review, examiner withdraws claim objection 3 in relation to claims 3 and 11.

### ***Claim Objections***

5. Claims 3-4, 8, 11-12, and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 3, 8, 11, and 16 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The term "hypothetical" in claims 3, 8, 11, and 16 has not been defined by the specification. A "hypothetical" situation requires a conditional limitation as to which has not been disclosed. Examiner has maintained this rejection arguing that "hypothetical" can be defined as: suppositional and uncertain; also having synonyms such as: imaginary, indefinite, and indeterminable. The examiner would like to point out that the removal of "hypothetical" in all instances would more clearly define the claim thereby removing any ambiguities regarding the term. It is believed by the examiner that removal of "hypothetical" would not change the *desired* scope and/or meaning of the claim.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-2, 7, 9-10, and 15 rejected under 35 U.S.C. 102(e) as being anticipated by Carlson (U.S. 6,697,849 B1).

a. As per claims 1 and 9, Carlson teaches: categorizing customer requests received from said plurality of websites into a plurality of categories, said categories comprising shareable customer requests which can be processed by servers of different

websites and unshareable customer requests which can not be processed by servers of different websites (line 65 of column 14 through line 10 of column 15, lines 29-36 of column 15, and Fig. 14) [wherein "sticky" requests are regarded as the unshareable customer requests]; routing said shareable customer requests such that any of said servers may process shareable customer requests received from different said websites (lines 47-57 of column 12, line 66 of column 13 through line 6 of column 14, lines 36-48 of column 14, and Fig. 7); and routing said unshareable customer requests from specific said websites only to specific servers to which said specific websites have been assigned (lines 11-28 of column 15).

b. As per claims 2 and 10, Carlson teaches: a Goal procedure comprising determining, for each said customer request, an optimal server from among said servers to which each said customer request is to be assigned so as to minimize an average customer response time at any given moment, given said assignment of said websites to said servers and a current customer request load (lines 12 of column 11 through line 26 of column 12, line 36-63 of column 14, and Fig. 5).

c. As per claims 7 and 15, Carlson teaches: examining the next customer request; invoking said Goal procedure in order to determine which server is the optimal server to currently process said next customer request; and dispatching said next customer request to said optimal server (lines 59-67 of column 4 lines 47-57 of column 12, Fig. 8, and Fig. 9).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 5 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson as applied to claim 1 above, in view of Lomet (U.S. 5,806,065).

Carlson fails to teach: the static procedure assigning specific websites to specific servers for the purpose of processing unsharable customer requests. However, Lomet discloses: "The data is distributed over the servers according to a distribution policy that specifies which server site is to host a new data page. Example distribution policies include opportunistic, randomized, and range. An 'opportunistic' distribution policy chooses the same server site at which the node is split as the site to host the new page created by the node split," (lines 38-44 of column 15).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the static procedure assign specific websites to specific servers for the purpose of processing unsharable customer requests. "This policy reduces communications cost by keeping the split pages together at the same site. In a 'randomized' distribution policy, the server site chosen for any newly created page is based on a randomization process that uniformly distributes the load across all of the sites," (lines 44-48 of column 15 in Lomet). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the

static procedure assign specific websites to specific servers for the purpose of processing unsharable customer requests in the system as taught by Carlson.

12. Claims 6 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson in view of Lomet as applied to claim 5 above, further in view of Gilbert et al. (U.S. 6,771,595 B1) hereinafter referred to as Gilbert.

Carlson fails to teach: the static procedure assigns websites to specific servers based upon forecasted demand for customer requests from each said website. However, Gilbert discloses: "An expert system 33 is used by the resource controller 34 to allocate network resources according to predicted future traffic patterns," (lines 46-48 of column 3).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the static procedure assign websites to specific servers based upon forecasted demand for customer requests from each website. "Future resource allocation is based on traffic patterns currently being monitored by the statistic monitoring agent," (lines 48-50 of column 3 in Gilbert). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the static procedure assign websites to specific servers based upon forecasted demand for customer requests from each website in the system as taught by Carlson and Lomet.

13. Claim 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson in view of Lomet.

Carlson teaches: means for receiving customer requests from customer (abstract and lines 40-43 of column 4); means for processing said customer requests to produce responses (abstract and lines 29-52 of column 5); means for transmitting said responses to said customers (abstract); means for categorizing said customer requests into shareable customer requests and unshareable customer requests (line 65 of column 14 through line 10 of column 15, lines 29-36 of column 15, and Fig. 14) [wherein "sticky" requests are regarded as the unshareable customer requests]; a network dispatcher comprising means for procedure, and a dynamic procedure (abstract, Fig. 1, and Fig. 2A-2C); said Goal procedure comprising determining, for each said customer request, an optimal server from among said servers to which each said customer request is to be assigned so as to executing a goal procedure, a static minimize an average customer response time at any given moment, given said assignment of said websites to said servers and a current customer request load, wherein said shareable customer requests may be assigned to any said server and wherein said unshareable customer requests may only be assigned to specific servers depending on which said website said unshareable customer request originated (lines 12 of column 11 through line 26 of column 12, line 36-63 of column 14, and Fig. 5); and said dynamic procedure comprising: examining the next customer request; involving said Goal procedure in order to determine which server is the optimal server to currently process said next



customer request; and dispatching said next customer request to said optimal server (lines 59-67 of column 4 lines 47-57 of column 12, Fig. 8, and Fig. 9).

Carlson fails to teach: said static procedure comprising assigning specific said websites to specific said servers. However, Lomet discloses: "The data is distributed over the servers according to a distribution policy that specifies which server site is to host a new data page. Example distribution policies include opportunistic, randomized, and range. An 'opportunistic' distribution policy chooses the same server site at which the node is split as the site to host the new page created by the node split," (lines 38-44 of column 15).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the static procedure assign specific websites to specific servers. "This policy reduces communications cost by keeping the split pages together at the same site. In a 'randomized' distribution policy, the server site chosen for any newly created page is based on a randomization process that uniformly distributes the load across all of the sites," (lines 44-48 of column 15 in Lomet). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the static procedure assign specific websites to specific servers in the system as taught by Carlson.

***Allowable Subject Matter***

14. The following is a statement of reasons for the indication of allowable subject matter: The functions disclosed in claims 3, 8, 11, and 16 pertaining to the goal procedure could not be found in the prior art.

***Response to Arguments***

15. (A) In relation to claims 1 and 9, the applicant asserts that Carlson does not teach or suggest methods for controlling web farms wherein a plurality of websites in the web farm can share servers assigned to different websites for processing client requests. The examiner respectfully disagrees.

As to point (A), the applicant argues that Carlson discloses nothing more than a method or (of?) load balancing among a plurality of backend application servers and questions how Carlson discloses multiple websites. First off, Carlson discloses multiple websites *clearly* on lines 19-31 of column 7, citing *specifically*: "In general, a web application may be defined as an Internet or Intranet-based application comprising a collection of resources that are accessible through uniform resource locators (**URLs**). The resources may include **web pages** comprising HTML, XML, scripting code such as Javascript or VBScript, or other types of elements. The resources may also include any of various types of executable programs or components, such as CGI programs, Java servlets, JavaBeans components, CORBA components, downloadable code such as Java classes or ActiveX components, etc. The resources may also include any other type of resource addressable through a URL." As to the claim that applicant believes

Carlson discloses only a method of load balancing amongst a plurality of backend application servers, the examiner directs the applicant to Fig. 2C as an alternate embodiment to the applicant-cited Fig. 2A. The description of Fig. 2C clearly describes an embodiment with a client computer in direct communication with the application servers, not as backend servers (see lines 25-48 of column 8). As such, this limitation is not in the claims and has not been further considered.

16. (B) Still in relation to claims 1 and 9, the applicant contends that Carlson does not disclose categorizing customer requests received from said plurality of websites into a plurality of categories, said categories comprising shareable customer requests which can be processed by server of different websites and unsharable customer requests which can not be processed by servers of different websites. The examiner respectfully disagrees.

As to point (B), the applicant argues that the "sticky requests" relied on by the examiner related only to requests that are processed by a specific backend application server of a cluster of backend applications servers for a given website. Discussion of the "backed application server" issue is discussed above in point (A). As to the "sticky requests", the examiner points to the cited section from the previous office action disclosing: "Administrators may mark certain application components for "sticky" load balancing, meaning that requests issued within the context of a particular session that reference that application component are all processed by the application component instance running on the same application server. Some application components may

need to be marked for sticky load balancing, especially if the components rely on session information that cannot be distributed across application servers. Such situations may arise, for example, if an application is originally written to run on one computer and is then ported to a distributed application server cluster environment,” (line 65 of column 14 through line 10 of column 15 in Carlson). Applicant was also directed in the previous office action to see Fig. 14 in support of the citation, which displays a “Sticky LB” checkbox column for *categorizing* requests, essentially a “yes/no” decision box declaring whether or not the request can be distributed amongst other servers. Support for this is clearly stated in the description for Fig. 14, specifically on lines 34-36 of column 15 which states: “The “Sticky LB” column of the user interface has a checkbox allowing sticky load balancing to be turned on for particular application components.” The previous citation enables administrators to select which should utilize “Sticky LB”, however, Carlson not only teach that clients could supply and maintain these requirements (lines 37-47 of column 15), but it also further teaches sticky requests bound to a particular server, thereby making them “unsharable”, (see lines 48-60 of column 15). For all of the reasons above, it is clearly proven than claims 1 and 9 are not patentable over the prior art.

17. (C) As to remaining claims 2, 5-7, 10, 13-15, and 17, no further arguments were made by applicant that have not already been addressed in points (A) and (B) above.

***Conclusion***

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bayeh et al. (U.S. 6,098,093) discloses maintaining sessions in a clustered server environment.

Farber et al. (U.S. 6,185,598 B1) discloses distributed websites with load balancing.

Wang et al. (U.S. 6,587,970 B1) discloses load balancing with information sharing.

Schairer et al. (U.S. 6,611,861 B1) discloses distributed websites with load balancing.

Chen et al. (U.S. 6,675,264 B2) discloses a cluster-based file system with load balancing.

Brendel (U.S. 6,772,333 B1) discloses load balancing and database sharing.

Dickenson (U.S. 2004/0025052 A1) discloses distributive access controller.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Meucci at (571) 272-3892. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell, can be reached at (571) 272-3868. The fax phone number for this Group is 571-273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.meucci@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**BEATRIZ PRIETO**  
**PRIMARY EXAMINER**